

64-72, 79, 118, 119, 120, 125-127 and 130-133 under 35 U.S.C. § 103(a) as being unpatentable over Barton in view of U.S. Patent No. 5,787,172 to Arnold (hereinafter "Arnold"). Additionally, the Examiner rejects claims 2, 34-37, 48, 80-83, 121, and 128 under 35 U.S.C. § 103(a) as being unpatentable over Barton in view of Arnold and further in view of Applied Cryptography by Schneier (hereinafter "Schneier"). Furthermore, the Examiner rejects claims 38-41, 84-87, 108-116, 122, 123, 129, and 134 under 35 U.S.C. § 103(a) as being unpatentable over Barton in view of Arnold and further in view of U.S. Patent No. 5,771,101 to Bramall (hereinafter "Bramall"). Lastly, the Examiner rejects claims 27-32 and 73-78 under 35 U.S.C. § 103(a) as being unpatentable over Barton in view of Arnold and further in view of U.S. Patent No. 5,579,393 to Conner et al. (hereinafter "Conner").

In response, Applicants respectfully traverse the Examiner's rejections under 35 U.S.C. § 103(a) for at least the reasons set forth below.

Applicants disagree with the Examiner's arguments with regard to:

- (1) claims 26, 72, 120, 127, and 130-133; and
- (2) claims 38-41, 84-87, 108-116, 122, 123, 129, and 134.

With regard to item (1) above, the claims enumerated therein add the feature of receiving the associated data from an external source, such as a GPS transmission, a radio frequency transmission, and an internet link. The Examiner maintains Official Notice that these methods for receiving data are well known in the art and that since Barton imports data, it would be obvious to do so in such ways. While Applicants agree that it is well known to receive data via a GPS, radio frequency and Internet data transmission, Applicants respectfully disagree that it is obvious to use such data as associated data in the watermark for

identifying an owner/author of the digital data. Furthermore, it is not obvious to use the type of data from a GPS transmission in a watermark.

Barton neither receives external data from these types of sources nor does it use such data in such a way. The Examiner cites U.S. Patent No. 5,712,679 to Coles (hereinafter "Coles") to support the argument that it is well known in the art to receive GPS transmissions by a digital image generation device. However, the GPS transmission in the device of Coles is not used to insert into a watermark but rather merely stores it the memory of the device and transmits the same to a remote receiver. **There is absolutely no suggestion in Coles to use the received GPS data to insert into a watermark.**

Thus, Applicants respectfully submit that the Examiner, without identifying a suggestion, motivation, or teaching for combining the references, has used impermissible hindsight to reject claims 26, 72, 120, 127, and 130-133 U.S.C. 103(a). The Federal Circuit in *In re Rouffet*, 47 USPQ2d 1457-58 (Fed. Cir., July 15, 1998) clearly states that virtually all inventions are combinations of old elements. Therefore an Examiner may often find every element of a claimed invention in the prior art. To prevent the use of hindsight based on the invention to defeat patentability of the invention, the Examiner is required to show a motivation or suggestion to combine the references that create the case of obviousness. Applicants respectfully submit that the Examiner has not met this burden with respect to claims 26, 72, 120, 127, and 130-133.

Therefore, independent claims 26 and 72 have been amended to place them in independent form. Independent claims 120, 127, and 130-133 already recite receiving data from such sources and inserting the same in the associated data.

With regard to (2) above, the claims enumerated therein add the feature of recognizing a user of a device which creates digital data and outputting an identifier corresponding to the recognized user to be input as the associated data in the watermark. Some of the claims specify that the user is recognized by fingerprint recognition. Bramall does not use biometrics (such as fingerprint recognition) to identify a user of a device, but uses a card reader to identify the user of the device, and if the user is authorized, the user's data is merged with data of an image being processed. Thus, in Bramall, recognition is manually carried out by an action of the user, whereas, in the devices of the present invention, it is automatic though a biometric characteristic such as fingerprint recognition. Therefore, claims 38-41, 84-87, 108-116, 122, 123, 129, and 134 distinguish over the teachings of Bramall.

Furthermore, the Examiner maintains Official Notice that fingerprint recognition is a well-known form of identification and that it would be obvious to identify the user of the device of Bramall with fingerprint recognition to gain the advantages associated with biometrics. Applicants respectfully submit that the Examiner is using hindsight to make this combination. Therefore, Applicants respectfully submit that there is no motivation or suggestion to use the device of Bramall with biometric identification means such as fingerprint identification. The Examiner cites U.S. Patent No. 5,648,648 to Chou et al. (hereinafter "Chou") to support the argument that it is well known in the art to use fingerprint recognition to identify users of a system. While this is true, there is absolutely no suggestion to use the data from such a recognition means to insert into a watermark as associated data identifying the author of the digital data.

Again, the Examiner is reminded that the Federal Circuit in *In re Rouffet*, Id. clearly states that virtually all inventions are combinations of old elements. Therefore an Examiner may often find every element of a claimed invention in the prior art. To prevent the use of hindsight based on the invention to defeat patentability of the invention, the Examiner is required to show a motivation or suggestion to combine the references that create the case of obviousness. Applicants respectfully submit that the Examiner has not met this burden with respect to claims 38-41, 84-87, 108-116, 122, 123, 129, and 134.

Thus, independent claims 108 and 122 have been amended to clarify that the recognition is through a biometric characteristic. Independent claims 129 and 134 already recite fingerprint recognition as a specific biometric characteristic that is recognized. The broader claim language (reciting biometric characteristic recognition instead of fingerprint recognition) is supported in the disclosure at the bottom of page 19. Therefore no new matter has been introduced into the disclosure by way of the present amendment.

With regard to claims 26, 38-41, 72, 84-87, 120, 127, 108-116, 122, 123, 129, 130-133, and 134, in light of the state of the law as set forth by the Federal Circuit applicants respectfully submit that the rejections for obviousness under 35 U.S.C. § 103(a) lack the requisite motivation and must be withdrawn.

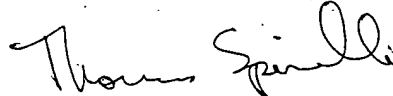
Furthermore, with regard to claims 38-41, 84-87, 108-116, 122, 123, 129, and 134, the same patentably distinguish over the cited references for the reasons set forth above and are allowable.

Therefore, Applicants respectfully submit that all of the independent claims are allowable. The remaining claims in the present application are allowable as depending upon an allowable base claim.

Attached hereto is a marked-up version of the changes made to the application by the current amendment. The attached page is captioned "Version with Markings to Show Changes Made."

In view of the above, it is respectfully submitted that this application is in condition for allowance. Accordingly, it is respectfully requested that this application be allowed and a Notice of Allowance issued. If the Examiner believes that a telephone conference with Applicant's attorneys would be advantageous to the disposition of this case, the Examiner is requested to telephone the undersigned.

Respectfully submitted,



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Enclosure (Version with Markings to Show Changes Made)

VERSION WITH MARKINGS TO SHOW CHANGES MADE

IN THE CLAIMS:

Claims 23, 25, 65, 69, and 71, have been canceled and the claims amended as follows:

1. (Twice Amended) A method for inserting a digital signature into digital data, the digital data comprising bits, the method comprising the steps of:

- assigning predetermined bits of the digital data for receiving the digital signature;
- inserting associated data into the digital data;
- signing the digital data excluding the predetermined bits resulting in the digital signature; [and]
- inserting the digital signature into the predetermined bits of the digital data for subsequent authentication of the digital data and the associated data; and
- receiving the associated data from a Global Positioning Satellite transmission;
- wherein at least a portion of the associated data comprises data identifying a public key needed to decrypt the digital signature.

47. (Twice Amended) An encoder for inserting a digital signature into digital data, the digital data comprising bits, the encoder comprising:

- means for assigning predetermined bits of the digital data for receiving the digital signature;
- means for signing the digital data excluding the predetermined bits resulting in the digital signature;

means for inserting the digital signature into the predetermined bits of the digital data for subsequent authentication of the digital data; [and]

means for inserting associated data into the digital data prior to signing the digital data such that the encoder authenticates both the associated data as well as the digital data; and

means for receiving the associated data from a Global Positioning Satellite transmission;

wherein at least a portion of the associated data comprises data identifying a public key needed to decrypt the digital signature and at least a portion of the associated data comprises data identifying the identity of an owner of the digital data.

66. (Amended) The encoder of claim [65] 47, wherein the digital data is an image and the associated data comprises data identifying a photographer of the image.

70. (Amended) The encoder of claim [69] 47, wherein at least one of the field comprises data identifying the owner of the public key.

108. (Twice Amended) A method for inserting data into digital data, the method comprising the steps of:

storing an identifier corresponding to each of at least one user of a device which creates the digital data;

recognizing a user of the device whose identifier is stored in the memory through biometric characteristic recognition;

outputting the identifier corresponding to the recognized user from the memory; and

inserting data corresponding to the identifier into the digital data.

122. (Amended) A method for inserting a digital signature into digital data, the digital data comprising bits, the method comprising the steps of:

assigning predetermined bits of the digital data for receiving the digital signature;

inserting associated data into the digital data;

signing the digital data excluding the predetermined bits resulting in the digital signature; and

inserting the digital signature into the predetermined bits of the digital data for subsequent authentication of the digital data and associated data;

storing an identifier in a memory corresponding to each of at least one user of a device which creates the digital data;

recognizing a user of the device whose identifier is stored in the memory through biometric characteristic recognition; and

outputting the identifier corresponding to the recognized user from the memory to be inserted as the associated data.